

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w18)

Sample course plan C Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))  
Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

Legend:

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1	Form	Semester 2	Form	Semester 3	Form	Semester 4	Form	Semester 5	Form	Semester 6	Form	Semester 7	Form												
1	<b>Chemistry</b>	VL 2	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	VL 3	<b>Technical Thermodynamics II</b>	VL 2	<b>Mechanical Engineering: Design (part 2)</b>	PBL2	<b>Introduction to Control Systems</b>	VL 2	<b>Foundations of Management</b>	VL 3	<b>Advanced Internship AIW/ GES</b>													
2															Chemistry I		Technical Thermodynamics II		Team Project Design Methodology		Introduction to Control Systems		Introduction to Management			
3															Chemistry II		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		Mechanical Design Project II		Introduction to Control Systems		Management Tutorial	
															Chemistry I											
																			Technical Thermodynamics II		<b>Fundamentals of Materials Science (part 2)</b>					
																			Electrical Engineering II: Alternating Current Networks and Basic Devices			Fundamentals of Materials Science II				
7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	VL 3	<b>Fundamentals of Mechanical Engineering Design</b>	VL 2	<b>Mathematics III</b>	VL 2	<b>Advanced Mechanical Engineering Design (part 2)</b>	VL 2	<b>Computer Engineering</b>	VL 3	<b>Enhanced Fundamentals of Materials Science</b>	VL 2														
8															Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Analysis III		Advanced Mechanical Engineering Design II		Computer Engineering		Enhanced Fundamentals: Metals	
9																	Fundamentals of Mechanical Engineering Design		Analysis III		Advanced Mechanical Engineering Design II		Computer Engineering		Enhanced Fundamentals: Ceramics and Polymers	
																				Differential Equations 1						
10															Electrical Engineering I: Direct Current Networks and Electromagnetic Fields				Differential Equations 1		<b>Fluid Dynamics</b>		VL 3		Enhanced Fundamentals: Ceramics and Polymers	
11																			Differential Equations 1			Fluid Mechanics				
12					Differential Equations 1		Fluid Mechanics																			
13	<b>Mathematics I</b>	VL 2	<b>Technical Thermodynamics I</b>	VL 2	<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>	VL 3	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>	VL 3	<b>Measurement Technology for Mechanical Engineers</b>	VL 2	<b>Structural Materials (part 2)</b>	VL 2														
14															Linear Algebra I		Technical Thermodynamics I		Mechanics III		Mechanics IV		Measurement Technology for Mechanical Engineering		Fundamentals of Mechanical Properties of Materials	
15															Linear Algebra I		Technical Thermodynamics I		Mechanics III		Mechanics IV		Measurement Technology for Mechanical Engineering		Advanced Materials	
															Linear Algebra I											
16															Analysis I				Mechanics III		Mechanics IV		Measurement Technology for Mechanical Engineering		Advanced Materials Characterization	
17															Analysis I				Mechanics III		Mechanics IV					
18	Analysis I				Mechanics III		Mechanics IV		Practical Course: Measurement and Control Systems		Advanced Materials Design															
19			<b>Mechanics II: Mechanics of Materials</b>		<b>Mechanical Engineering: Design (part 1)</b>		<b>Signals and Systems</b>		<b>Numerical Mathematics I</b>																	
20																										
21	<b>Mechanics I (Statics)</b>		Mechanics II		<b>Mechanical Engineering: Design (part 1)</b>		<b>Signals and Systems</b>		<b>Numerical Mathematics I</b>																	
22	Mechanics I		Mechanics II			Signals and Systems				Signals and Systems					Numerical Mathematics I											

23	Mechanics I Mechanics I	UE 2 HÜ 1	Mechanics II	HÜ 2	Embodiment Design and 3D-CAD Mechanical Design Project I	VL 2 PBL3	Signals and Systems	UE 2	Mathematics I	
24										
25										
26										
27	<b>Programming in C</b> Programming in C Programming in C	VL 1 PR 1	<b>Mathematics II</b> Linear Algebra II Linear Algebra II Linear Algebra II	VL 2 UE 1 HÜ 1	<b>Fundamentals of Materials Science (part 1)</b> Fundamentals of Materials Science I Physical and Chemical Basics of Materials Science	VL 2 VL 2			<b>Structural Materials (part 1)</b> Welding Technology	VL 3
28			Analysis II	VL 2						
29	<b>Physics for Engineers (AIW)</b> Physics for Engineers Physics for Engineers	VL 2 UE 1	Analysis II	HÜ 1	<b>Advanced Mechanical Engineering Design (part 1)</b> Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2			<b>Material Science Laboratory</b> Companion Lecture for Materials Science Laboratory Material Science Laboratory	VL 2 PR 4
30			Analysis II	UE 1						
31										
32										
33										

Nontechnical Complementary Courses for Bachelors (from catalogue) - 6LP

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.